

# UNITED STATES PATENT OFFICE.

GEORGE BESTWICK, OF PATRICROFT, ENGLAND.

## DISK OR WASHER FOR VALVES, &c.

SPECIFICATION forming part of Letters Patent No. 648,338, dated April 24, 1900.

Application filed November 28, 1899. Serial No. 738,588. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE BESTWICK, a subject of the Queen of Great Britain, residing at Patricroft, in the county of Lancaster, England, have invented new and useful Improvements in Disks or Washers for Valves or the Like, of which the following is a specification.

The improvements which form the subject of this invention relate to the production of disks or washers and blanks of various shapes from the corozo-nut, that is obtained from the corozo-pippin after the rind and fruit have been removed therefrom, generally known as the "ivory-nut," or seed of a tropical American palm, which I treat with a solution of chlorid of lime and employ said disks, washers, or blanks in the manufacture of valves, taps, and the like.

For the purposes of this invention I cut the aforesaid nut to a shape corresponding approximately to the shape of the article required or from which said article may be produced by turning in a lathe, and steep the same in a solution of chlorid of lime for forty-eight hours or thereabout. It is then turned, bored, or otherwise worked, and may be employed separately or in combination with metal or other material. If, for example, a valve is to be made, I cut a disk from the aforesaid nut, which I treat with chlorid of lime, as here-

inbefore named, and fit said disk into a brass or other metal cap, in which the screwed end of a spindle is inserted, or said disk may be turned in a lathe and the screwed end of a spindle fitted therein. The front or other part of the disk may be made flexible by painting with muriatic acid and formed by pressure into a cone or other required shape. By these means valves, valve-seatings, taps, and like articles are produced with indestructible wearing-surfaces, either wholly from the corozo-nut or in combination with metal or other material.

I claim as my invention—

1. Disks or washers for valves, taps and like uses or for parts of valves, taps and the like, made of the corozo or ivory nut treated with chlorid of lime, substantially as hereinbefore described.

2. The process herein described of making disks or washers for valves, &c., consisting in subjecting the substance to the action of a solution of chlorid of lime and making them into shape, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE BESTWICK.

Witnesses:

JNO. HUGHES,  
J. ERNEST HUGHES.